



**.100 [2.54] Centerline MTA-100 IDC Connectors and Headers**

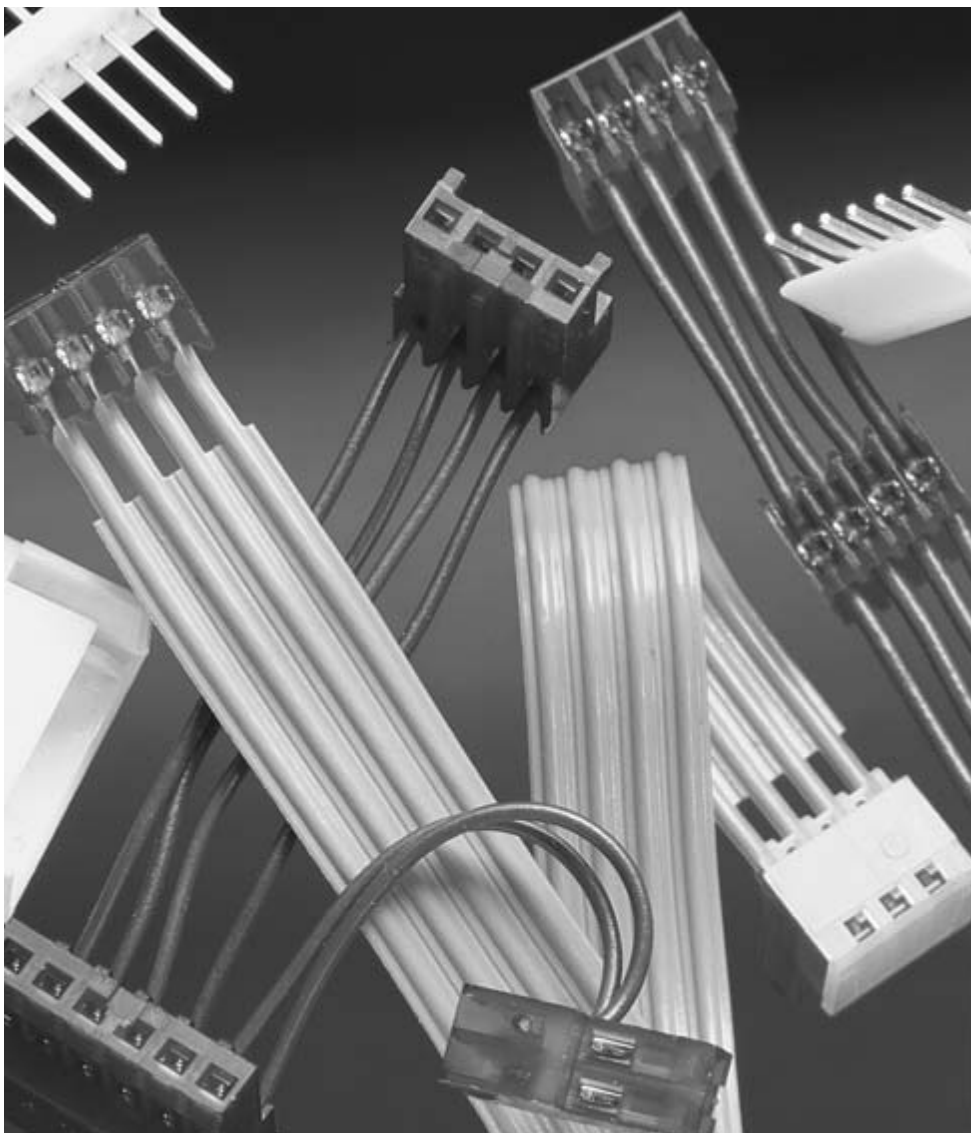
**Product Facts**

- Connectors and headers for 2 through 28 positions; wire sizes of 22, 24, 26 and 28 AWG [0.4-0.08 mm<sup>2</sup>]
- Wire-to-Post Connectors preloaded with dual beam contacts
- Connectors and headers, except shrouded headers, are end-to-end stackable
- Connector styles include both closed end and feed-thru connectors with locking ramps, with and without polarizing tabs
- Molded ribs on housing do not allow reverse mating
- Posted connectors for 2 through 19 positions
- Connectors preloaded with IDC contacts
- All contacts are slotted for insulation displacement (IDC) terminal technique
- Contacts are lubricated for fretting corrosion protection
- Benefits derived from the MTA-100 system include increased quality and ease of handling such as —
  - One-step assembly
  - No wire stripping
  - No contact damage
  - Reduced wiring errors
  - Simpler tooling
  - Simple maintenance and repair
- Meets the material requirements of Table 23.1 of UL1410 Standards for Television Receiver and Video Products (wire-to-post connectors only)
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476 
- Certified by Canadian Standards Association, File No. LR7189 

**Technical Documents**

**Product Specification**  
108-1050 MTA-100 Connectors

**Application Specifications**  
114-1019 MTA-100 Connectors  
114-1031 MTA-100 Ribbon Cable Assembly



MTA-100 connectors accept discrete and ribbon cable wire sizes ranging from 22–28 AWG [0.4–0.08 mm<sup>2</sup>] with maximum insulation outside diameter of .060 [1.52] for terminating single wire and .050 [1.27] for mass termination of wires. Tin plated solid, fused stranded, or stranded (7 strands) wire with PVC insulation can be used on 22–28 AWG [0.4–0.9 mm<sup>2</sup>] MTA-100 connectors and 19 stranded wire on 22–24 AWG [0.4–0.2 mm<sup>2</sup>] MTA-100 connectors. Only

one wire to be terminated into an IDC contact slot.

The wire-to-post connector housing material is flame retardant thermoplastic, either UL94V-2 or UL94V-0 rated.

A full line of .100 [2.54] centerline headers completes the system. Headers are available with straight or right-angle posts, in flat, polarized or friction lock styles. Headers are available in 2 through 28 positions. Shrouded headers are available in 2 through 14 positions.

**Performance Data\***

**Voltage Rating**—250 vac

**Current Rating**—5 amp max.

**Low-Level Resistance**—  
6 mΩ max. initial

**Dielectric Withstanding Voltage**—  
750 vac/1 min.

**Insulation Resistance**—  
5000 MΩ min. initial

**Operating Temperature**—  
–55° C to +105° C

**Note:** Refer to page 70 for approved wire listings.

\*Refer to the Product Specification for additional electrical, mechanical and environmental performance tests and requirements.

## MTA-100 Connector/Header Mateability Guide

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 header and connector combination. Where a “Y” is indicated the combination is a valid mating pair. Where an “N” is indicated the combination is not acceptable for mating.

### Matrix for Tin Plated Part Numbers

## Headers

[illegible]

\*Select contact plating to match header plating.

## MTA-100 Connector/Header Mateability Guide (Continued)

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 header and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

Matrix for .000030  
[0.00076] Gold Plated  
Part Numbers

Connectors	Headers																			
	641211	641212	641213	641214	641215	641216	644487	644489	644884	644885	644886	644887	644896	644897	644898	647108	647109	647114	647116	647117
641237	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
641238	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
641239	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
641240	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
641241	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
641242	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
641243	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
641244	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
644020	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
644042	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
644043	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
644044	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
644702	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
644726	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
*1375820	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

MTA-100  
.100 [2.54]

Matrix for .000015  
[0.00038] Gold Plated  
Part Numbers

Connectors	Headers															
	641122	641123	641124	641125	641126	641127	644888	644889	644890	644891	647075	647076	647078	647079	647107	647167
641190	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641191	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641192	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641193	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641198	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641199	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641200	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641201	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644038	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644040	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
647477	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
647480	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
*1375820	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
1744020	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

\*Select contact plating to match header plating.

## MTA-100 IDC Connectors—Closed End and Feed-Thru

### Material and Finish

**Housing**—UL94V-2 rated, nylon, see below for color; or UL94V-0 rated, nylon, black

**Contacts**—Phosphor bronze, post tin plated, .000030 [0.00076] or .000015 [0.00038] post gold-plated over nickel

### Color Coding by Wire Size for UL94V-2 Connectors

28 AWG—Green  
26 AWG—Blue  
24 AWG—White  
22 AWG—Red

All wire sizes in UL94V-0—Black

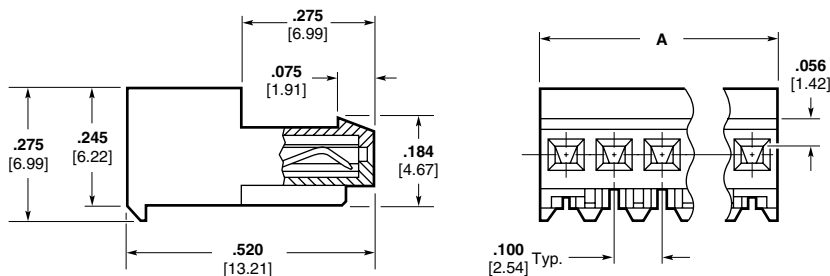
For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 20 thru 30.

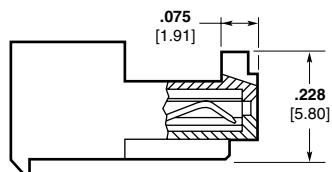
### Notes:

1. Refer to pages 70-74 for approved wire listing.
2. For strain reliefs and dust covers, see page 16.
3. For keying plugs, see page 17.
4. Other circuit sizes are available upon request. Minimums may apply.
5. Connector circuits can be molded closed for keying purposes. Minimums may apply.
6. Where no part numbers appear in the chart, parts can be made available upon request. Minimums may apply.
7. To determine connector overall length (dim. A), multiply .100 x the number of circuits. Example: .100 x 10 circuits equals 1.000 inch [25.4 mm].

### Closed End Connectors

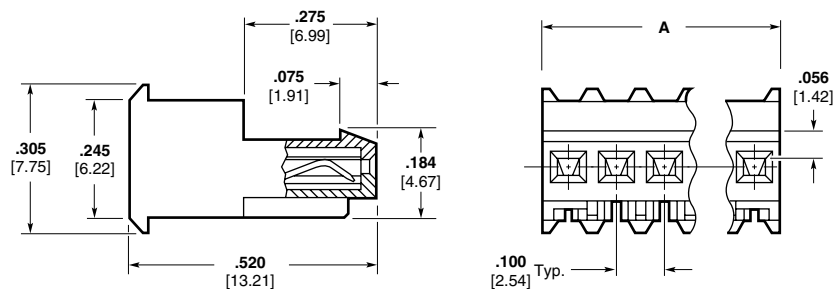


Without Polarizing Tabs

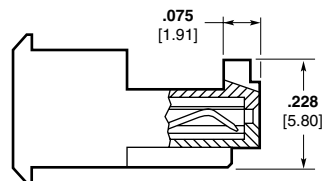


With Polarizing Tabs

### Feed-Thru Connectors



Without Polarizing Tabs



With Polarizing Tabs

## Connector Ordering Information

The "Base Part Numbers" Chart at right shows the base part number, number of circuits and their RoHS (Restrictions on Certain Hazardous Substances) Compliant (lead free) equivalent available for the described connectors.

Prefixes and suffixes are determined by the number of circuit positions in the connector. For example, the complete part number for a 10-position closed end connector without polarizing tabs for 22 AWG wire would be:

Base number **640440** plus prefix-and-suffix **1- — -0**

The correct ordering number is **1-640440-0**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	640440-2	3-640440-2
3	640440-3	3-640440-3
4	640440-4	3-640440-4
5	640440-5	3-640440-5
6	640440-6	3-640440-6
7	640440-7	3-640440-7
8	640440-8	3-640440-8
9	640440-9	3-640440-9
10	1-640440-0	4-640440-0
11	1-640440-1	4-640440-1
12	1-640440-2	4-640440-2
13	1-640440-3	4-640440-3
14	1-640440-4	4-640440-4
15	1-640440-5	4-640440-5
16	1-640440-6	4-640440-6
17	1-640440-7	4-640440-7
18	1-640440-8	4-640440-8
19	1-640440-9	4-640440-9
20	2-640440-0	5-640440-0
21	2-640440-1	5-640440-1
22	2-640440-2	5-640440-2
23	2-640440-3	5-640440-3
24	2-640440-4	5-640440-4
25	2-640440-5	5-640440-5
26	2-640440-6	5-640440-6
27	2-640440-7	5-640440-7
28	2-640440-8	5-640440-8

**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

## MTA-100 IDC Connectors—Closed End and Feed-Thru (Continued)

### Base Part Numbers

Connector Type & Wire Size	Closed End				Feed-Thru			
	Without Tabs		With Tabs		Without Tabs		With Tabs	
	Connector Part Nos.	No. of Circuits/ RoHS Equiv.	Connector Part Nos.	No. of Circuits/ RoHS Equiv.	Connector Part Nos.	No. of Circuits/ RoHS Equiv.	Connector Part Nos.	No. of Circuits/ RoHS Equiv.
<b>Standard UL94V-2, Tin Plated</b>								
<b>22 AWG</b> 0.3–0.4 mm <sup>2</sup>	640440	2–28 <b>32–58</b>	643813	2–28 <b>32–58</b>	640620	2–28 <b>32–58</b>	644540 <sup>1</sup>	2–15 <b>32–45</b>
<b>24 AWG</b> 0.2 mm <sup>2</sup>	640441	2–28 <b>32–58</b>	643814	2–28 <b>32–58</b>	640621	2–28 <b>32–58</b>	644563 <sup>1</sup>	2–24 <b>32–54</b>
<b>26 AWG</b> 0.12–0.15 mm <sup>2</sup>	640442	2–28 <b>32–58</b>	643815	2–28 <b>32–58</b>	640622	2–28 <b>32–58</b>	644564 <sup>1</sup>	2–15 <b>32–45</b>
<b>28 AWG</b> 0.08–0.09 mm <sup>2</sup>	640443	2–28 <b>32–58</b>	643816	2–28 <b>32–58</b>	640623	2–28 <b>32–58</b>	644565 <sup>1</sup>	2–15 <b>32–45</b>
<b>Tape Mounted on Reel UL94V-2, Tin Plated</b>								
<b>22 AWG</b> 0.3–0.4 mm <sup>2</sup>	640468	2–28 <b>32–58</b>	644511	2–28 <b>42–68</b>	641311	2–28 <b>32–58</b>	—	—
<b>24 AWG</b> 0.2 mm <sup>2</sup>	640469	2–28 <b>32–58</b>	644512	2–28 <b>32–58</b>	641312	2–28 <b>32–58</b>	—	—
<b>26 AWG</b> 0.12–0.15 mm <sup>2</sup>	640470	2–28 <b>32–58</b>	644513	2–28 <b>32–58</b>	641313	2–28 <b>32–58</b>	—	—
<b>28 AWG</b> 0.08–0.09 mm <sup>2</sup>	640471	2–28 <b>32–58</b>	644514	2–28 <b>32–58</b>	641314	2–28 <b>32–58</b>	—	—
<b>Standard UL94V-2, .000030 [0.00076] Gold Plated</b>								
<b>22 AWG</b> 0.3–0.4 mm <sup>2</sup>	641237	2–28 <b>32–58</b>	644042	2–28 <b>32–58</b>	641241	2–28 <b>32–58</b>	644702 <sup>1</sup>	2–15 <b>32–45</b>
<b>24 AWG</b> 0.2 mm <sup>2</sup>	641238	2–28 <b>32–58</b>	644020	2–28 <b>32–58</b>	641242	2–28 <b>32–58</b>	—	—
<b>26 AWG</b> 0.12–0.15 mm <sup>2</sup>	641239	2–28 <b>32–58</b>	644043 <sup>1</sup>	2–14 <b>32–44</b>	641243	2–28 <b>32–58</b>	644726 <sup>1</sup>	2–15 <b>32–45</b>
<b>28 AWG</b> 0.8–0.9 mm <sup>2</sup>	641240	2–28 <b>32–58</b>	644044 <sup>1</sup>	2–14 <b>32–44</b>	641244	2–28 <b>32–58</b>	—	—
<b>Standard UL94V-2, .000015 [0.00038] Gold Plated</b>								
<b>22 AWG</b> 0.3–0.4 mm <sup>2</sup>	641190	2–28 <b>32–58</b>	644038 <sup>1</sup>	2–14 <b>32–44</b>	641198	2–28 <b>32–58</b>	647477	2–16 <b>32–46</b>
<b>24 AWG</b> 0.2 mm <sup>2</sup>	641191	2–28 <b>32–58</b>	1744020 <sup>1</sup>	2–14 <b>32–44</b>	641199	2–28 <b>32–58</b>	—	—
<b>26 AWG</b> 0.12–0.15 mm <sup>2</sup>	641192	2–28 <b>32–58</b>	644040 <sup>1</sup>	2–14 <b>32–44</b>	641200	2–28 <b>32–58</b>	647480	2–13 <b>32–43</b>
<b>28 AWG</b> 0.08–0.09 mm <sup>2</sup>	641193	2–28 <b>32–58</b>	—	—	641201	2–28 <b>32–58</b>	—	—
<b>LED*, UL94V-2, Tin Plated (See Note 1)</b>								
<b>22 AWG</b> 0.3–0.4 mm <sup>2</sup>	641534	2–3 <b>32–33</b>	—	—	641653	2–3 <b>32–33</b>	—	—
<b>24 AWG</b> 0.2 mm <sup>2</sup>	641535	2–3 <b>32–33</b>	644795	2–3 <b>32–33</b>	641654	2–3 <b>32–33</b>	—	—
<b>26 AWG</b> 0.12–0.15 mm <sup>2</sup>	641536	2–3 <b>32–33</b>	—	—	641655	2–3 <b>32–33</b>	—	—
<b>28 AWG</b> 0.08–0.09 mm <sup>2</sup>	641537	2–3 <b>32–33</b>	—	—	641656	2–3 <b>32–33</b>	—	—
<b>Standard UL94V-0, Tin Plated (Gold is available, minimums may apply.) (Black in color)</b>								
<b>22 AWG</b> 0.3–0.4 mm <sup>2</sup>	643498 <sup>1</sup>	2–15 <b>32–45</b>	644083 <sup>1</sup>	2–15 <b>32–45</b>	644575 <sup>1</sup>	2–15 <b>32–45</b>	644578 <sup>1</sup>	2–15 <b>32–45</b>
<b>24 AWG</b> 0.2 mm <sup>2</sup>	644574 <sup>1</sup>	2–15 <b>32–45</b>	644312 <sup>1</sup>	2–15 <b>32–45</b>	644576 <sup>1</sup>	2–15 <b>32–45</b>	644579 <sup>1</sup>	2–15 <b>32–45</b>
<b>26 AWG</b> 0.12–0.15 mm <sup>2</sup>	643828 <sup>1</sup>	2–15 <b>32–45</b>	644313 <sup>1</sup>	2–15 <b>32–45</b>	644577 <sup>1</sup>	2–15 <b>32–45</b>	644497 <sup>1</sup>	2–15 <b>32–45</b>

\*LED connectors are designed to mate with .014–.020 [0.36–0.51] diameter posts or square leads.

<sup>1</sup> Other circuit sizes are available upon request. Minimums may apply.

<sup>2</sup> Tape mounted.

**Note:** Blocked circuit configurations are available. Contact product engineer or product manager for details. Minimums may apply.



## MTA-100 IDC Connector Accessories

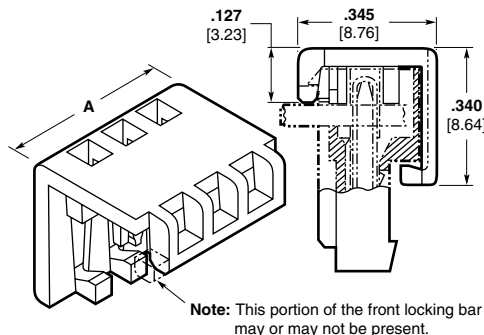
### Covers

#### Material (RoHS Compliant)

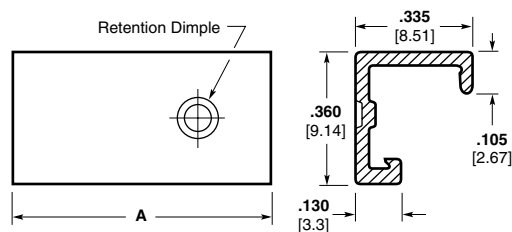
**Strain Relief Cover** — UL94V-2 rated, nylon, white

**Dust Covers** — UL94V-0 rated, polyester, white

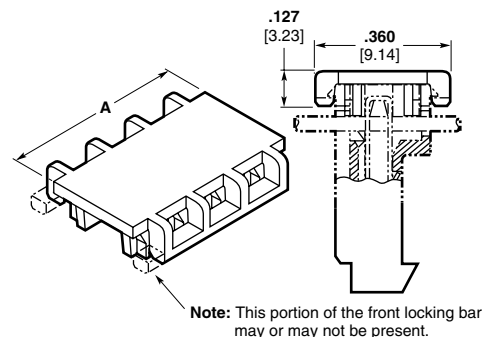
#### Closed End Strain Relief Covers



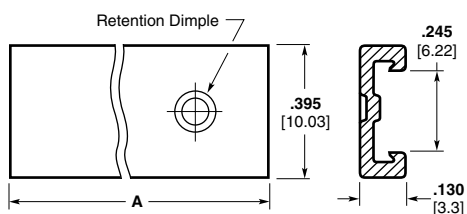
#### Closed End Dust Covers



#### Feed-Thru Strain Relief Covers



#### Feed-Thru Dust Covers



### Cover Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of circuits available for the described cover.

Prefixes and suffixes are determined by the number of circuit positions in the cover. For example, the complete part number for a 10-position closed end strain relief cover would be:

Base number **643075** plus prefix-and-suffix

**1- -0**

The correct ordering number is

**1-643075-0**

### Base Part Numbers

Closed End				Feed-Thru			
Strain Relief Covers		Dust Covers		Strain Relief Covers		Dust Covers	
Cover Part Nos.	No. of Circuits	Cover Part Nos.	No. of Circuits	Cover Part Nos.	No. of Circuits	Cover Part Nos.	No. of Circuits
643075	2-28	640550	2-28	643077	2-28	640642	3-28

### Cover Length

No. of Circuits	Dim. A	Prefix/Suffix
2	.200 5.08	-2
3	.300 7.62	-3
4	.400 10.16	-4
5	.500 12.7	-5
6	.600 15.24	-6
7	.700 17.78	-7
8	.800 20.32	-8

No. of Circuits	Dim. A	Prefix/Suffix
9	.900 22.86	-9
10	1.00 25.4	1- -0
11	1.100 27.94	1- -1
12	1.200 30.48	1- -2
13	1.300 33.02	1- -3
14	1.400 35.56	1- -4
15	1.500 38.1	1- -5

No. of Circuits	Dim. A	Prefix/Suffix
16	1.600 40.64	1- -6
17	1.700 43.18	1- -7
18	1.800 45.72	1- -8
19	1.900 48.26	1- -9
20	2.000 50.8	2- -0
21	2.100 53.34	2- -1
22	2.200 55.88	2- -2

No. of Circuits	Dim. A	Prefix/Suffix
23	2.300 58.42	2- -3
24	2.400 60.96	2- -4
25	2.500 63.5	2- -5
26	2.600 66.04	2- -6
27	2.700 68.58	2- -7
28	2.800 71.12	2- -8

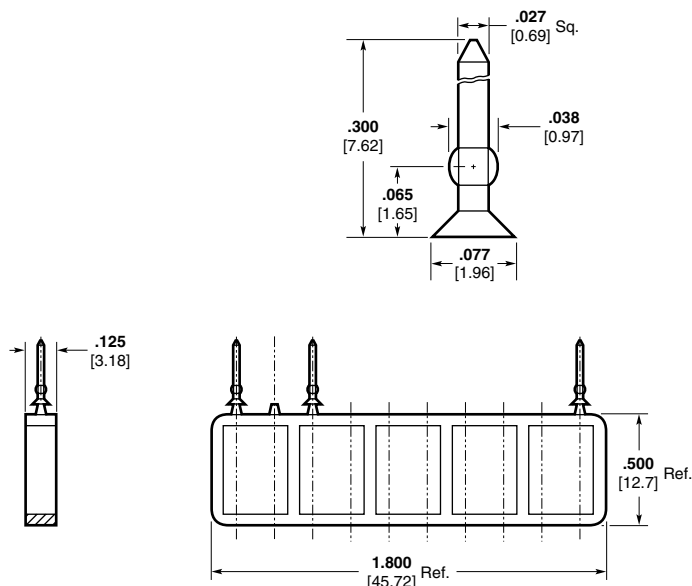
## Keying Plug with Carrier Strip (10 plugs per strip)

Part No. 641994-1

### Material (RoHS Compliant)

UL94V-2 rated, nylon, natural color

**Note:** Removal of contact is not necessary when using keying plug.



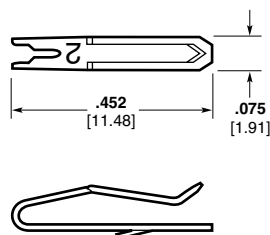
## Replacement IDC Contacts

### Material and Finish

Phosphor bronze, post tin plated;  
.000030 [0.00076] or .000015  
[0.00038] post gold plated over nickel

**Note:** Tyco Electronics does not recommend terminating an MTA contact more than one time. Use replacement contacts when required for field repairs or wire changes.

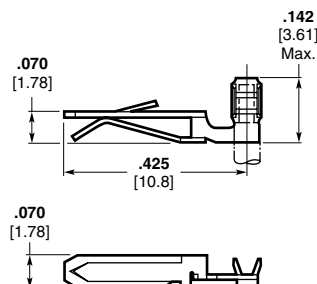
Wire Size		Part Numbers			
AWG	mm <sup>2</sup>	Standard Tin Plated	.000030 [0.00076] Gold Plated	.000015 [0.00038] Gold Plated	LED Tin Plated
22	0.3–0.4	640636-3	641186-4	641186-3	641643-2
24	0.2	640637-3	641187-4	641187-3	641644-2
26	0.12–0.15	640638-3	641188-4	641188-3	641645-2
28	0.08–0.09	640639-2	641189-4	641189-3	641646-2



## Crimp Snap-In Contacts

### Material and Finish

Phosphor bronze, tin plated



Wire Size		Part Nos.	
AWG	mm <sup>2</sup>	Loose Piece*	Strip**
26-22	0.12–0.4	640709-2	640708-2

\*\*Hand Tool No. 59836-1 (IS 408-6527)  
\*\*Applicator No. 466747-1 (IS 408-8040)

Special applications for crimp snap-in contacts are:

1. Double wire per contact
2. Coax or shielded wire
3. Mixed wire size in same connector

**Note:** Only one crimp snap-in contact per connector.

## MTA-100 Posted Connector/Connector Mateability Guide

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 posted connector and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

Matrix for Tin Plated  
Part Numbers

Posted Connectors

	647000	647001	647002	647003	647004	647005	647006	647007
640440	Y	Y	Y	Y	Y	Y	Y	Y
640441	Y	Y	Y	Y	Y	Y	Y	Y
640442	Y	Y	Y	Y	Y	Y	Y	Y
640443	Y	Y	Y	Y	Y	Y	Y	Y
640468	Y	Y	Y	Y	Y	Y	Y	Y
640469	Y	Y	Y	Y	Y	Y	Y	Y
640470	Y	Y	Y	Y	Y	Y	Y	Y
640471	Y	Y	Y	Y	Y	Y	Y	Y
640620	Y	Y	Y	Y	Y	Y	Y	Y
640621	Y	Y	Y	Y	Y	Y	Y	Y
640622	Y	Y	Y	Y	Y	Y	Y	Y
640623	Y	Y	Y	Y	Y	Y	Y	Y
641311	Y	Y	Y	Y	Y	Y	Y	Y
641312	Y	Y	Y	Y	Y	Y	Y	Y
641313	Y	Y	Y	Y	Y	Y	Y	Y
641314	Y	Y	Y	Y	Y	Y	Y	Y
641534	Y	Y	Y	Y	Y	Y	Y	Y
641535	Y	Y	Y	Y	Y	Y	Y	Y
641536	Y	Y	Y	Y	Y	Y	Y	Y
641537	Y	Y	Y	Y	Y	Y	Y	Y
641653	Y	Y	Y	Y	Y	Y	Y	Y
641654	Y	Y	Y	Y	Y	Y	Y	Y
641655	Y	Y	Y	Y	Y	Y	Y	Y
641656	Y	Y	Y	Y	Y	Y	Y	Y
643498	Y	Y	Y	Y	Y	Y	Y	Y
643813	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
643814	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
643815	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
643816	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
643828	Y	Y	Y	Y	Y	Y	Y	Y
644083	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644312	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644313	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644497	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644511	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644512	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644513	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644514	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644540	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644563	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644564	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644565	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644574	Y	Y	Y	Y	Y	Y	Y	Y
644575	Y	Y	Y	Y	Y	Y	Y	Y
644576	Y	Y	Y	Y	Y	Y	Y	Y
644577	Y	Y	Y	Y	Y	Y	Y	Y
644578	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644579	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644795	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
1375820	N	N	N	N	N	N	N	N

\*2 & 3 position MTA-100 Posted Connectors can not mate with MTA-100 connectors with polarizing tabs.

MTA-100  
Part Numbers  
[2.54]



**MTA-100 Posted Connector/Connector Mateability Guide** (Continued)

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 posted connector and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

Matrix for .000030  
[0.00076] Gold Plated  
Part Numbers

Connectors	Posted Connectors						
	647008	647009	647010	647011	647012	647013	647014
641237	Y	Y	Y	Y	Y	Y	Y
641238	Y	Y	Y	Y	Y	Y	Y
641239	Y	Y	Y	Y	Y	Y	Y
641240	Y	Y	Y	Y	Y	Y	Y
641241	Y	Y	Y	Y	Y	Y	Y
641242	Y	Y	Y	Y	Y	Y	Y
641243	Y	Y	Y	Y	Y	Y	Y
641244	Y	Y	Y	Y	Y	Y	Y
644020	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644042	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644043	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644044	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644702	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644726	Y*	Y*	Y*	Y*	Y*	Y*	Y*
1375820	N	N	N	N	N	N	N

\*2 & 3 position MTA-100 Posted Connectors can not mate with MTA-100 connectors with polarizing tabs.

Matrix for .000015  
[0.00038] Gold Plated  
Part Numbers

Connectors	Posted Connectors						
	647008	647009	647010	647011	647012	647013	647014
641190	Y	Y	Y	Y	Y	Y	Y
641191	Y	Y	Y	Y	Y	Y	Y
641192	Y	Y	Y	Y	Y	Y	Y
641193	Y	Y	Y	Y	Y	Y	Y
641198	Y	Y	Y	Y	Y	Y	Y
641199	Y	Y	Y	Y	Y	Y	Y
641200	Y	Y	Y	Y	Y	Y	Y
641201	Y	Y	Y	Y	Y	Y	Y
644038	Y*	Y*	Y*	Y*	Y*	Y*	Y*
644040	Y*	Y*	Y*	Y*	Y*	Y*	Y*
647477	Y*	Y*	Y*	Y*	Y*	Y*	Y*
647480	Y*	Y*	Y*	Y*	Y*	Y*	Y*
1375820	N	N	N	N	N	N	N
1744020	Y*	Y*	Y*	Y*	Y*	Y*	Y*

\*2 & 3 position MTA-100 Posted Connectors can not mate with MTA-100 connectors with polarizing tabs.

MTA-100 IDC Posted Connectors (Wire-to-Wire)—Closed End, Feed-Thru

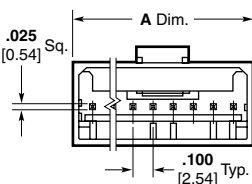
Material and Finish

**Housing**—UL 94V-2 rated, nylon, see chart for color

**Contacts**—Copper alloy, post tin or gold plated over nickel (see chart)

Notes:

1. Mating half visuals - pages 14 & 15.
2. Use feed thru strain relief covers & feed thru dust covers (if needed) - page 16.
3. Approved wire listing - pages 70 thru 74.



Connector Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of circuits available for the described connectors.

Prefixes and suffixes are determined by the number of circuit positions in the connector. For example, the complete part number for a 12-position closed end connector for 22 AWG wire would be:

Base number **647000** plus prefix-and-suffix  
**1- -2**

The correct ordering number is **1-647000-2**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647000-2	3-647000-2
thru		
19	1-647000-9	4-647000-9

See page 15 for an explanation of RoHS lead free equivalents.

**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Color Coding by Wire Size for UL 94V-2 Connectors

22 AWG—Red  
24 AWG—White  
26 AWG—Blue  
28 AWG—Green

Performance Data

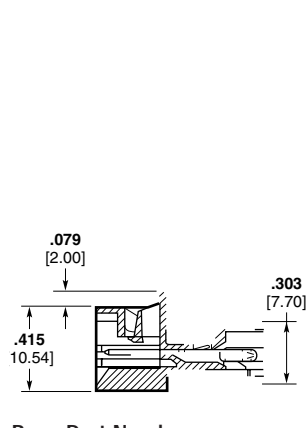
**Voltage Rating**—250 VAC

**Current Rating**—4 amp max.

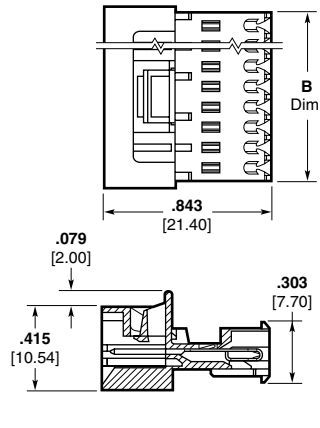
**Low-Level Resistance**—16 mΩ max. initial

**Dielectric Withstanding Voltage**—750 VAC/1 min.

Closed End



Feed-Thru



Base Part Numbers

Connector Type & Wire Size	Closed End Connector		Feed-Thru Connector	
	Part Nos.	No. of Circuits/RoHS Equiv.	Part Nos.	No. of Circuits
<b>Standard UL 94V-2, Tin Plated</b>				
22 AWG 0.3–0.4 mm <sup>2</sup>	647000	2–19 <sup>1</sup> 32–49	647004	— <sup>2</sup>
24 AWG 0.2 mm <sup>2</sup>	647001	2–19 <sup>1</sup> 32–49	647005	— <sup>2</sup>
26 AWG 0.12–0.15 mm <sup>2</sup>	647002	2–19 <sup>1</sup> 32–49	647006	— <sup>2</sup>
28 AWG 0.08–0.09 mm <sup>2</sup>	647003	2–19 <sup>1</sup> 32–49	647007	— <sup>2</sup>
<b>Standard UL 94V-2, .000030 [0.00076] Gold Plated</b>				
22 AWG 0.3–0.4 mm <sup>2</sup>	647008	2–19 <sup>1</sup> 32–49	647012	— <sup>2</sup>
24 AWG 0.2 mm <sup>2</sup>	647009	2–19 <sup>1</sup> 32–49	647013	— <sup>2</sup>
26 AWG 0.12–0.15 mm <sup>2</sup>	647010	2–19 <sup>1</sup> 32–49	647014	— <sup>2</sup>
28 AWG 0.08–0.09 mm <sup>2</sup>	647011	2–19 <sup>1</sup> 32–49	647015	— <sup>2</sup>
<b>Standard UL 94V-2, .000015 [0.00038] Gold Plated</b>				
22 AWG 0.3–0.4 mm <sup>2</sup>	647016	2–19 <sup>1</sup> 32–49	647020	— <sup>2</sup>
24 AWG 0.2 mm <sup>2</sup>	647017	2–19 <sup>1</sup> 32–49	647021	— <sup>2</sup>
26 AWG 0.12–0.15 mm <sup>2</sup>	647018	2–19 <sup>1</sup> 32–49	647022	— <sup>2</sup>
28 AWG 0.08–0.09 mm <sup>2</sup>	647019	2–19 <sup>1</sup> 32–49	647023	— <sup>2</sup>

<sup>1</sup> 2 and 3 position MTA-100 Posted Connectors (Closed End) can not mate with MTA-100 connectors with polarizing tabs.  
<sup>2</sup> Parts may be manufactured upon request. Minimums may apply. Contact product engineer or product manager for details.

No. of Circuits	Dim.		No. of Circuits	Dim.		No. of Circuits	Dim.		No. of Circuits	Dim.	
	A	B		A	B		A	B		A	B
2	.300 [7.62]	.227 [5.77]	6	.700	.627	10	1.100	1.027	14	1.500	1.427
3	.400 [10.16]	.327 [8.31]									
4	.500 [12.70]	.427 [10.85]									
5	.600	.527									

**Insulation Resistance**—5000 MΩ min. initial

**Operating Temperature**—–55°C to +105°C

Technical Documents

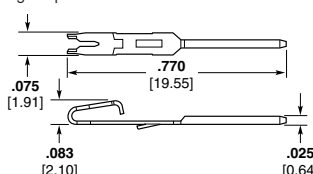
**Product Specification**  
108-1050-1 MTA-100 Posted Connector

**Application Specification**  
114-1019 MTA-100 Connectors

Replacement IDC Contacts

Material and Finish

**Contacts**—Copper alloy, post tin or gold plated over nickel



AWG85]95.9(m)-59.7(m)]TJ/F1 1 TT 4 0 0 4 471.2685 13[2837 Tm 0 T

## MTA-100 Flat Headers—Straight and Right-Angle

### Material and Finish

**Housing**—UL94V-0 rated, polyester, white

**Posts**—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

#### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

### Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **641211** plus  
prefix-and-suffix  
**1- -0**

The correct ordering number is  
**1-641211-0**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641211-2	3-641211-2
	thru	
28	2-641211-8	5-641211-8

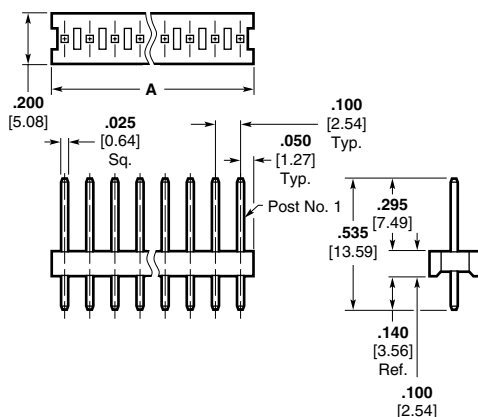
See page 15 for an explanation of RoHS lead free equivalents.

**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

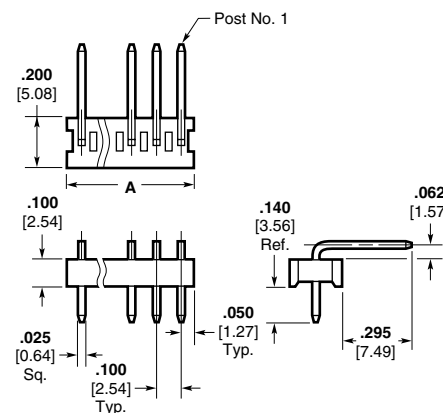
#### Note:

Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

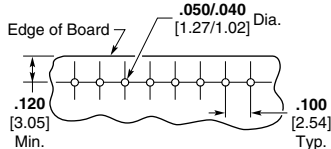
### Straight Post (.025 [0.64] Square)



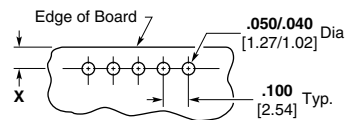
### Right-Angle Post (.025 [0.64] Square)



X = .120 [3.05] min., .240 [6.1] max.  
when mated with MTA-100 Connector.  
X = .120 [3.05] min., when mated with  
CST-100 II Connector.



Recommended Mounting Hole Pattern  
for .062 [1.57] Thk. PC Board



Recommended Mounting Hole Pattern  
for .062 [1.57] Thk. PC Board

**Note:** Consult Product Drawing for details on placing headers onto PC boards.

### Base Part Numbers

Straight Posts		Right-Angle Posts	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>			
640452	<b>2-28</b>	640453	<b>2-28</b>
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>			
641211	<b>2-28</b> <b>32-58</b>	641212	<b>2-28</b> <b>32-58</b>
<b>Standard UL94V-0, .000015 [0.00038] Gold Plated</b>			
641122	<b>2-28</b> <b>32-58</b>	641123	<b>2-28</b> <b>32-58</b>

### Material and Finish

**Housing** — UL94V-0 rated, polyester, white

**Posts** — Copper alloy, tin plated,  
[.000030 [0.00076] or .000015  
[0.00038] gold over nickel

#### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Headers without retentive legs are suitable for breakaway application.
3. 2 or 3 retentive leg(s) per header, depending upon number of positions.
4. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
5. To determine header overall length (dim. A) multiply .100 x the number of posts minus (–) .012.  
Example: .100 x 10 posts – .012 = .988 inches [25.1 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

### Connector Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts and without retentive legs would be:

Base number **644456** plus prefix-and-suffix  
**1- -0**

The correct ordering number is **1-644456-0**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	644456-2	3-644456-2
	thru	
28	2-644456-8	5-644456-8

See page 15 for an explanation of RoHS lead free equivalents.

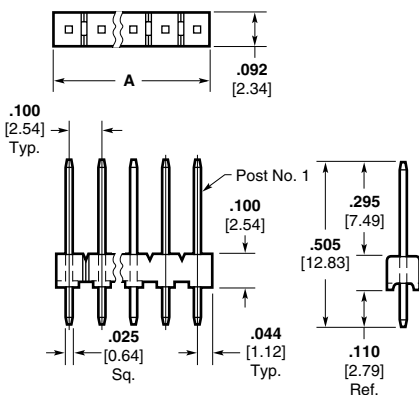
**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

#### Note:

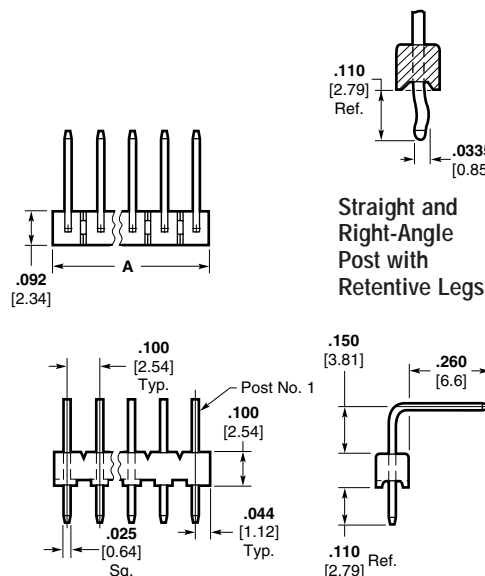
Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

## MTA-100 Narrow Flat Headers—Straight and Right-Angle

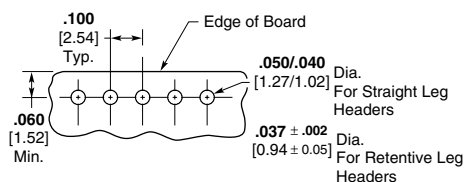
### Straight Post (.025 [0.64] Square)



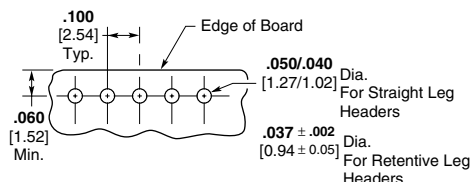
### Right-Angle Post (.025 [0.64] Square)



### Straight and Right-Angle Post with Retentive Legs



Recommended Mounting Hole Pattern  
for .062 [1.57] Thk. PC Board



Recommended Mounting Hole Pattern  
for .062 [1.57] Thk. PC Board

**Note:** Consult Product Drawing for details on placing headers onto PC boards.

### Base Part Numbers

Straight Posts				Right-Angle Posts			
Without Retentive Legs		With Retentive Legs		Without Retentive Legs		With Retentive Legs	
Header Part Nos.	No. of Posts/RoHS Equiv.	Header Part Nos.	No. of Posts/RoHS Equiv.	Header Part Nos.	No. of Posts/RoHS Equiv.	Header Part Nos.	No. of Posts/RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>							
644456	2–28 32–58	644695	2–28 32–58	644457	2–28 32–58	644694	2–28 32–58
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>							
644884	2–28	644886	2–28	644885	2–28	644887	2–28
<b>Standard UL94V-0, .000015 [0.00038] Gold Plated</b>							
644888	2–28	644890	2–28	644889	2–28	644891	2–28

### Material and Finish

**Housing**—UL94V-0 rated, polyester, white

**Posts**—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

#### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. All posts on retentive leg headers are bent.
4. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

### Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **641213** plus prefix-and-suffix **1- -0**

The correct ordering number is **1-641213-0**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641213-2	3-641213-2
thru		
28	2-641213-8	5-641213-8

See page 15 for an explanation of RoHS lead free equivalents.

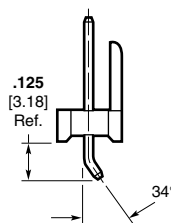
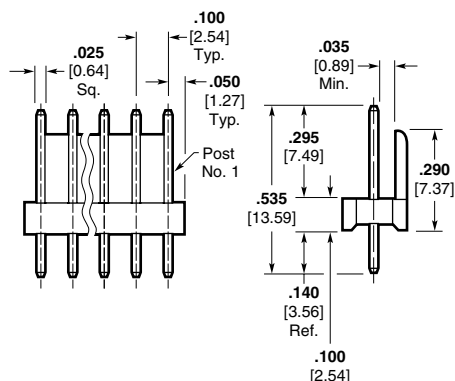
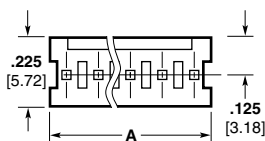
**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

#### Note:

Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

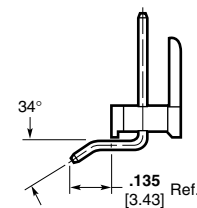
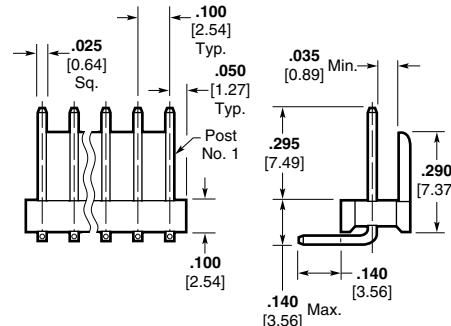
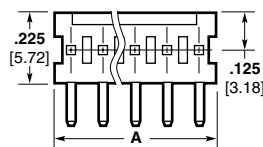
## MTA-100 Polarized Headers—Straight and Right-Angle

### Straight Post (.025 [0.64] Square)

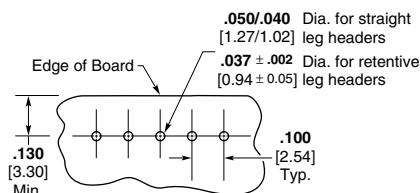


Retentive Leg

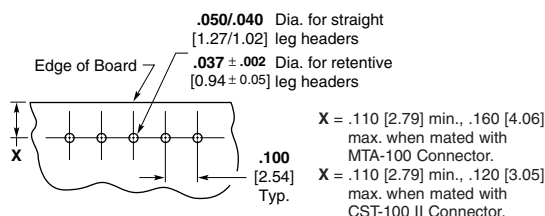
### Right-Angle Post (.025 [0.64] Square)



Retentive Leg



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

**Note:** Consult Product Drawing for details on placing headers onto PC boards.

### Base Part Numbers

Straight Posts				Right-Angle Posts			
Without Retentive Legs		With Retentive Legs		Without Retentive Legs		With Retentive Legs	
Header Part Nos.	No. of Posts/RoHS Equiv.	Header Part Nos.	No. of Posts/RoHS Equiv.	Header Part Nos.	No. of Posts/RoHS Equiv.	Header Part Nos.	No. of Posts/RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>							
640454	2-28	644876	2-28	640455	2-28	644877	2-28
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>							
641213	2-28 32-58	—	—	641214	2-28 32-58	—	—
<b>Standard UL94V-0, .000015 [0.00038] Gold Plated</b>							
641124	2-28 32-58	—	—	641125	2-28 32-58	—	—

## MTA-100 Friction Lock Headers—Straight and Right-Angle

### Material and Finish

**Housing**—UL94V-0 rated, polyester, white

**Posts**—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

#### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. All posts on retentive leg headers are bent.
4. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

### Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **641215** plus  
prefix-and-suffix  
**1- — -0**

The correct ordering number is  
**1-641215-0**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641215-2	3-641215-2
thru		
28	2-641215-8	5-641215-8

See page 15 for an explanation of RoHS lead free equivalents.

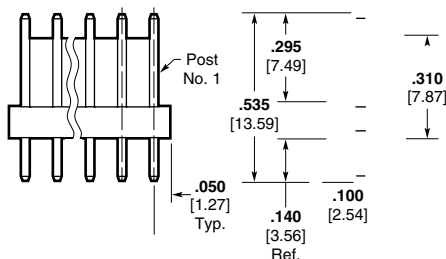
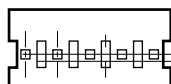
**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

#### Note:

Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

### Straight Post (.025 [0.64] Square)

### Right-Angle Post (.025 [0.64] Square)





### Material and Finish

**Housing**—UL94V-0 rated, thermo-plastic, black

**Posts**—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

### Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **647609** plus  
prefix-and-suffix  
**1- -0**

The correct ordering number is  
**1-647609-0**

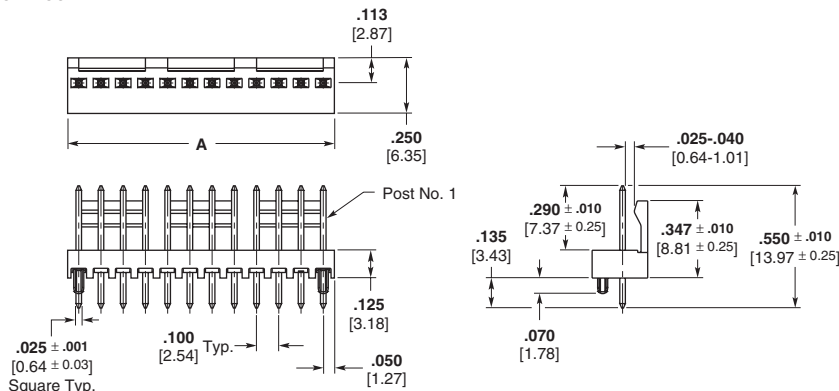
The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647609-2	3-647609-2
3	647609-3	3-647609-3
4	647609-4	3-647609-4
5	647609-5	3-647609-5
6	647609-6	3-647609-6
7	647609-7	3-647609-7
8	647609-8	3-647609-8
9	647609-9	3-647609-9
10	1-647609-0	4-647609-0
11	1-647609-1	4-647609-1
12	1-647609-2	4-647609-2

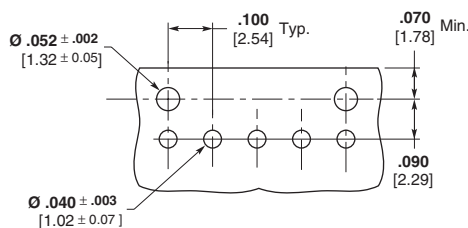
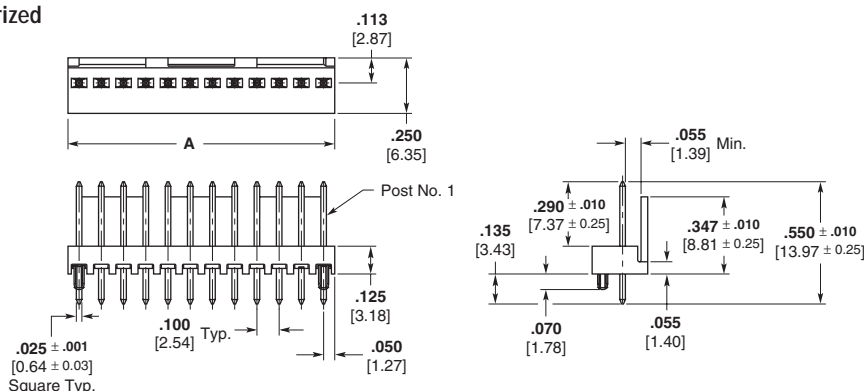
**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

## MTA-100 Headers with Retention Peg—Straight

### Friction Lock



### Polarized



Recommended Mounting Hole Pattern  
for .062 [1.57] Thk. PC Board

**Note:** Consult Product Drawing for details on placing headers onto PC boards.

### Base Part Numbers

Friction Lock		Polarized	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>			
647609	2-12 32-42	647623	2-12 32-42
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>			
647626	2-12 32-42	647624	2-12 32-42
<b>Standard UL94V-0, .000015 [0.00038] Gold Plated</b>			
647627	2-12 32-42	647625	2-12 32-42

**Note:** Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

## MTA-100 High Profile Headers—Right-Angle

### Material and Finish

**Housing**—UL94V-0 rated, thermo-plastic, black

**Posts**—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

#### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].
4. This product can be mounted in the middle of the PC Board as shown in the PCB layout.

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

### Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with right-angle posts would be:

Base number **647630** plus prefix-and-suffix  
**1- -0**

The correct ordering number is  
**1-647630-0**

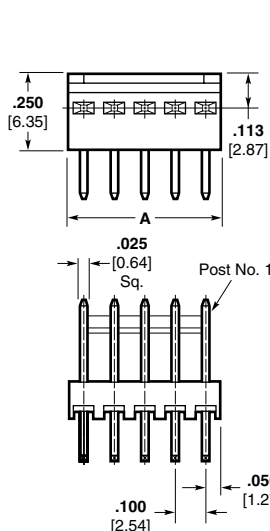
The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647630-2	3-647630-2
3	647630-3	3-647630-3
4	647630-4	3-647630-4
5	647630-5	3-647630-5
6	647630-6	3-647630-6
7	647630-7	3-647630-7
8	647630-8	3-647630-8
9	647630-9	3-647630-9
10	1-647630-0	4-647630-0
11	1-647630-1	4-647630-1
12	1-647630-2	4-647630-2

**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

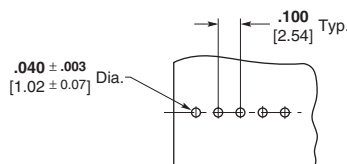
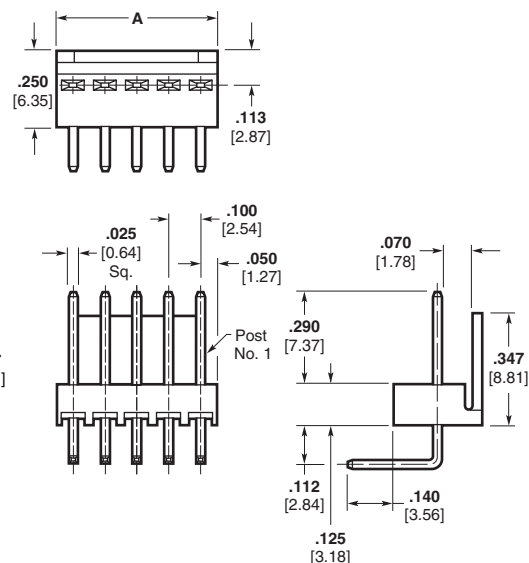
### Friction Lock

#### Right-Angle Post (.025 [0.64] Square)



### Polarized

#### Right-Angle Post (.025 [0.64] Square)



Recommended Mounting Hole Pattern  
for .062 [1.57] Thk. PC Board

**Note:** Consult Product Drawing for details on placing headers onto PC boards.

### Base Part Numbers

Friction Lock		Polarized	
Right-Angle Posts		Right-Angle Posts	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>			
647630	2-12 <b>32-42</b>	647651	2-12 <b>32-42</b>
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>			
647629	2-12 <b>32-42</b>	647653	2-12 <b>32-42</b>
<b>Standard UL94V-0, .000015 [0.00038] Gold Plated</b>			
647628	2-12 <b>32-42</b>	647652	2-12 <b>32-42</b>

**Note:** Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

## Material and Finish

### Housing —

2–12 Position — UL94V-0 rated,  
nylon, black  
13–18 Position — UL94V-0 rated,  
LCP, black

**Posts** — Copper alloy, tin plated,  
.000030 [0.00076] or .000015  
[0.00038] gold over nickel

### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

## Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **647047** plus  
prefix-and-suffix  
**1- -0**

The correct ordering number is  
**1-647047-0**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647047-2	3-647047-2
	thru	
12	1-647047-2	4-647047-2
13	1-647047-3	NA
	thru	
18	1-647047-8	NA

See page 15 for an explanation of RoHS lead free equivalents.

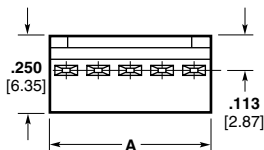
**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

## MTA-100 Polarized High Temperature Headers—Straight and Right-Angle

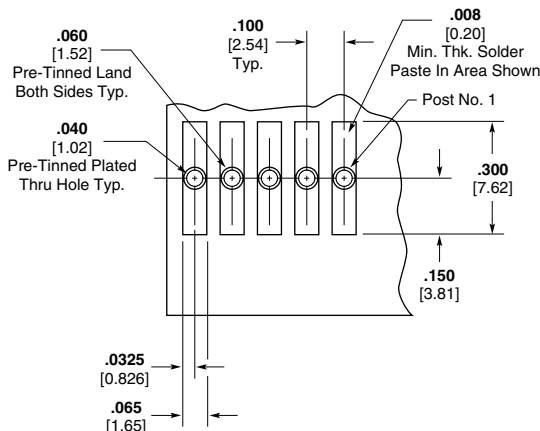
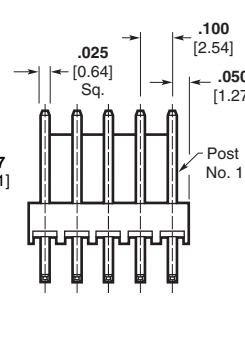
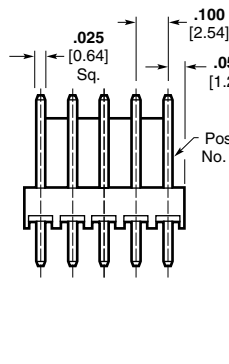
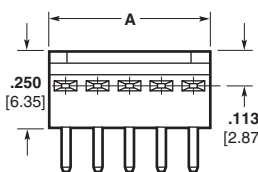
For use with Infrared Reflow Process

Maximum Temperature Rating: 2–12 Position: 280°C  
13–18 Position: 235°C

### Straight Post (.025 [0.64] Square)



### Right-Angle Post (.025 [0.64] Square)



**Note:** Consult Product Drawing for details on placing headers onto PC boards.

### Recommended Mounting Hole Pattern for .062 [1.57] Thick PC Board

### Base Part Numbers

Straight Posts		Straight Posts (Tube Loaded)		Right-Angle Posts	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>					
647047	2–18 <b>32–42</b>	647298	2–18 <b>32–42</b>	647048	2–18 <b>32–42</b>
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>					
647109	2–18 <b>32–42</b>	647300	2–18 <b>32–42</b>	647114	2–18 <b>32–42</b>
<b>Standard UL94V-0, .000015 [0.00038] Gold Plated</b>					
647075	2–18 <b>32–42</b>	647299	2–18 <b>32–42</b>	647076	2–18 <b>32–42</b>

**Note:** Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA-100 Friction Lock High Temperature Headers—Straight and Right-Angle

Material and Finish

Housing —

2–12 Position — UL94V-0 rated,  
nylon, black  
13–18 Position — UL94V-0 rated,  
LCP, black

Posts — Copper alloy, tin plated,  
.000030 [0.00076] or .000015  
[0.00038] gold over nickel

Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **647050** plus  
prefix-and-suffix  
**1- — -0**

The correct ordering number is  
**1-647050-0**

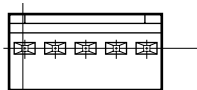
The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647050-2	3-647050-2
	thru	
12	1-647050-2	4-647050-2
13	1-647050-3	NA
	thru	
18	1-647050-8	NA

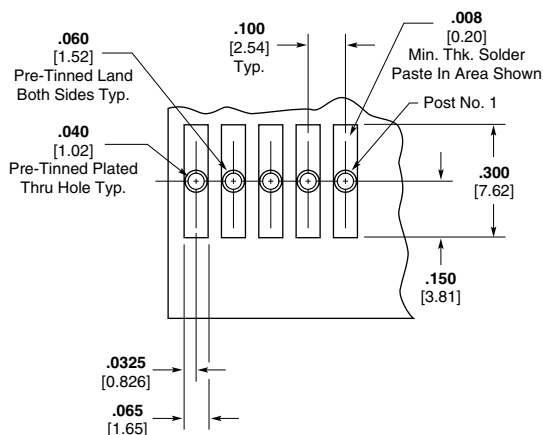
See page 15 for an explanation of RoHS lead free equivalents.

**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Straight Post (.025 [0.64] Square)



Right-Angle Post (.025 [0.64] Square)



Recommended Mounting Hole Pattern for .062 [1.57] Thick PC Board

Base Part Numbers

Straight Posts		Straight Posts (Tube Loaded)		Right-Angle Posts	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>					
647050	2–18 <b>32-42</b>	647295	2–18 <b>32-42</b>	647051	2–18 <b>32-42</b>
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>					
647116	2–18 <b>32-42</b>	647297	2–18 <b>32-42</b>	647117	2–18 <b>32-42</b>
<b>Standard UL94V-0, .000015 [0.00038] Gold Plated</b>					
647078	2–18 <b>32-42</b>	647296	2–18 <b>32-42</b>	647079	2–18 <b>32-42</b>

## Material and Finish

### Housing —

2–12 Position — UL94V-0 rated,  
nylon, black  
13–18 Position — UL94V-0 rated,  
LCP, black

**Posts**—Copper alloy, tin plated,  
.000030 [0.00076] or .000015  
[0.00038] gold over nickel

### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

## Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position surface mount polarized header would be:

Base number **647106** plus  
prefix-and-suffix  
**1- -0**

The correct ordering number is  
**1-647106-0**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647106-2	3-647106-2
	thru	
12	1-647106-2	4-647106-2
13	1-647106-3	NA
	thru	
18	1-647106-8	NA

See page 15 for an explanation of RoHS lead free equivalents.

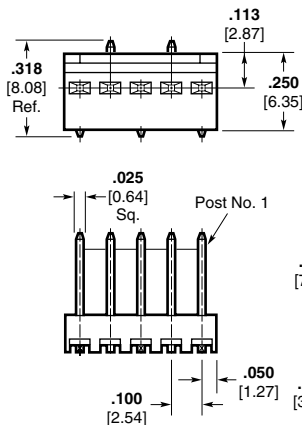
**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

## MTA-100 Polarized and Friction Lock Surface Mount Headers—Straight

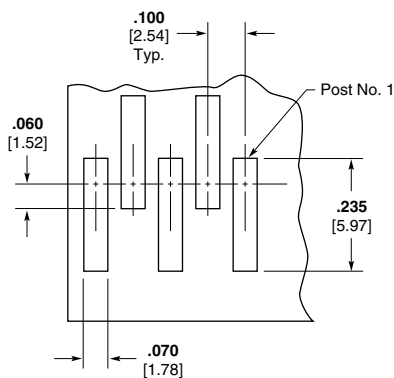
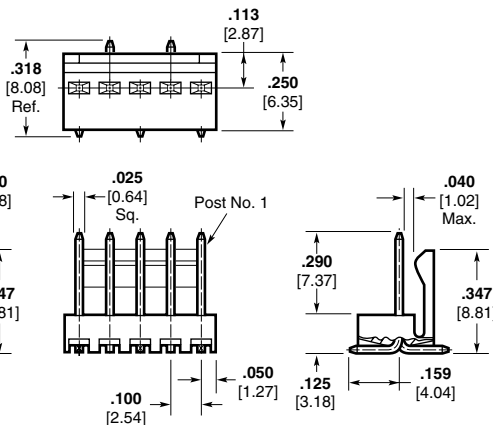
### For use with Infrared Reflow Process

Maximum Temperature Rating: 2–12 Position: 280°C  
13–18 Position: 235°C

### Polarized Header



### Friction Lock Header



**Note:** Consult Product Drawing for details on placing headers onto PC boards.

### Recommended PC Board Layout for use with .010 [0.25] Thick Stencil

### Base Part Numbers

Polarized Headers		Friction Lock Headers	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>			
647106	2–18 <sup>1</sup> <b>32-42</b>	647166	2–18 <sup>1</sup> <b>32-42</b>
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>			
647108	2–18 <sup>1</sup> <b>32-42</b>	647168	2–18 <sup>1</sup> <b>32-42</b>
<b>Standard UL94V-0, .000015 [0.00038] Gold Plated</b>			
647107	2–18 <sup>1</sup> <b>32-42</b>	647167	2–18 <sup>1</sup> <b>32-42</b>

<sup>1</sup> Availability may vary depending on number of posts. Alternate packaging may be available upon request. Minimums may apply. Contact product engineer or product manager for details.

**Note:** Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

## Material and Finish

**Housing**—UL94V-0 rated, polyester, black

**Posts**—Copper alloy, tin plated; or .000030 [0.00076] gold over nickel

### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Headers with .000015 [0.00038] gold plated post are available upon request. Minimums may apply.
3. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14 and 15.

## Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts and with pegs would be:

Base number **644486** plus prefix-and-suffix  
**1- -0**

The correct ordering number is  
**1-644486-0**

See page 15 for an explanation of RoHS lead free equivalents.

**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

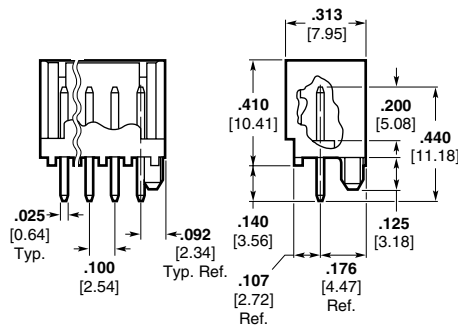
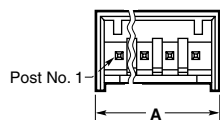
### Notes:

1. Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.
2. MTA-100 shrouded headers **do not mate** with CST-100 II housings.

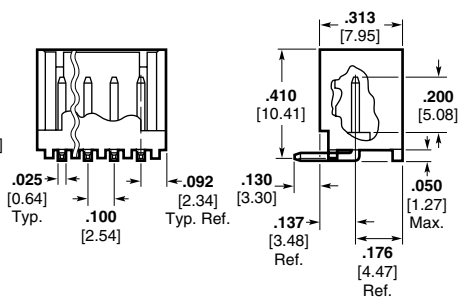
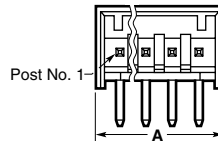
## Header Length

No. of Circuits	Dim. A	Prefix/Suffix
2	.284 7.21	-2
3	.384 9.75	-3
4	.484 12.29	-4
5	.584 14.83	-5

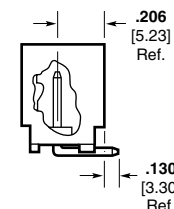
## Straight Post (.025 [0.64] Square)



## Right-Angle (.025 [0.64] Square)

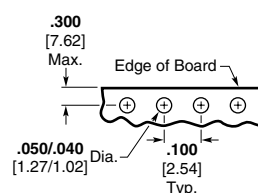
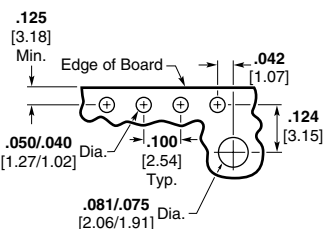


### Front Bend



### Rear Bend

**Note:** Consult Product Drawing for details on placing headers onto PC boards.



**Recommended Mounting Hole Pattern**  
for .062 [1.57] Thk. PC Board  
(Solder Side of Board Shown)

**Recommended Mounting Hole Pattern**  
for .062 [1.57] Thk. PC Board  
(Solder Side of Board Shown)

## Base Part Numbers

Straight Posts				Right-Angle Posts			
With Pegs		Without Pegs		Front Bend		Rear Bend	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>							
644486	2-14 22-34	644861	2-14 22-34	644488	2-14 22-34	644803	2-14 22-34
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>							
644487	2-14 22-34	—	—	644489	2-14 22-34	—	—

No. of Circuits	Dim. A	Prefix/Suffix	No. of Circuits	Dim. A	Prefix/Suffix	No. of Circuits	Dim. A	Prefix/Suffix
2	.284 7.21	-2	6	.684 17.37	-6	10	1.084 27.53	1- -0
3	.384 9.75	-3	7	.784 19.91	-7	11	1.184 30.07	1- -1
4	.484 12.29	-4	8	.884 22.45	-8	12	1.284 32.61	1- -2
5	.584 14.83	-5	9	.984 24.99	-9	13	1.384 35.15	1- -3



electronics

.100 [2.54] Centerline CST-100 II Crimp Contacts and Housings

Facts

most wire-to-board  
connections

wire range for single

gold plated  
s

with specified MTA  
similar competitive  
headers

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helps prevent con-  
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CST-100 II  
.100 [2.54]

## Material and Finish

**Housing**—UL94V-0 rated, polyester, black

**Posts**—Copper alloy, tin plated; or .000030 [0.00076] gold over nickel

### Notes:

1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Headers with .000015 [0.00038] gold plated posts are available upon request. Minimums may apply.
3. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see page 31.

## Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts and with pegs would be:

Base number **644893** plus prefix-and-suffix **1- -0**

The correct ordering number is **1-644893-0**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	644893-2	3-644893-2
thru		
14	1-644893-4	4-644893-4

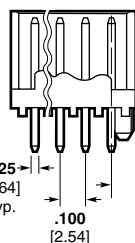
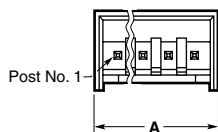
See page 15 for an explanation of RoHS lead free equivalents.

**Note:** All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

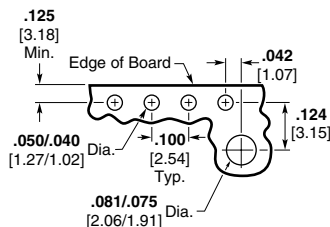
**Note:** CST-100 II shrouded headers **only mate** with CST-100 II housings. All the MTA-100 headers except the MTA-100 shrouded headers mate with CST-100 II housings.

## CST-100 II Shrouded Headers—Straight and Right-Angle

### Straight Post (.025 [0.64] Square)

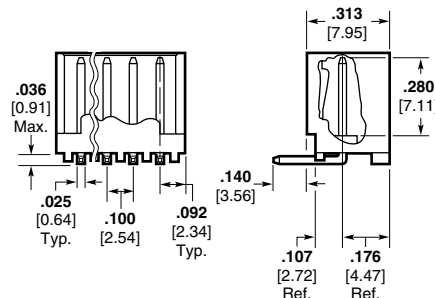
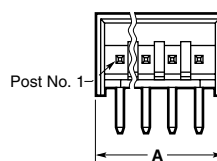


Polarized Retention Peg

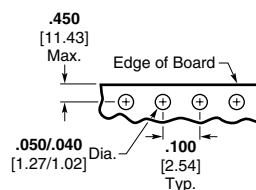


Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board (Solder Side of Board Shown)

### Right-Angle (.025 [0.64] Square)



**Note:** Consult Product Drawing for details on placing headers onto PC boards.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board (Solder Side of Board Shown)

### Base Part Numbers

Straight Posts				Right-Angle Posts Without Pegs Only	
With Pegs	Without Pegs				
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
<b>Standard UL94V-0, Tin Plated</b>					
644893	2-14 <b>32-44</b>	644892	2-14 <b>32-44</b>	644894	2-14 <b>32-44</b>
<b>Standard UL94V-0, .000030 [0.00076] Gold Plated</b>					
644897	2-14 <b>32-44</b>	644896	2-14 <b>32-44</b>	644898	2-14 <b>32-44</b>

### Header Length

No. of Circuits	Dim. A	Prefix/ Suffix	No. of Circuits	Dim. A	Prefix/ Suffix	No. of Circuits	Dim. A	Prefix/ Suffix
2	.284 7.21	-2	5	.584 14.83	-5	8	.884 22.45	-8
3	.384 9.75	-3	6	.684 17.37	-6	9	.984 24.99	-9
4	.484 12.29	-4	7	.784 19.91	-7	10	1.084 27.53	1- -0